

## **PLANTS FROM THE HABITAT DIRECTIVE – ANNEX IIb, PRESENTS IN ROMANIA**

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**Summary:** In order to assist the Romanian Government in fulfilling their obligations required to become a full member of the European Union, the Dutch Agency for International Business and Cooperation (EVD) developed a special project, focused on Habitat Directive plants, having as result a preinventory for a draft list of Natura 2000 sites (SCIs) for plant species. In this frame the Romanian botanists evaluated the existing lack of information concerning the plants distribution in Romania, the difference between national and internal approach and the requirements for well understand and document this group of taxa, very important for Habitat Directive implementation in Romania.

**Key words:** Romanian accession agreement, threatened plants, lack of information, up-date database

### **Introduction**

The objective of this paper was to realize an overview on the existing information about the plant species from the Habitat Directive 92/43/EEC, present in Romania and nominated in the Accession Agreement of Romania to the European Union, including a clear discussion on the arisen problems and gaps, results and future needs [5].

This contribution is a result of the project “The implementation of the EU Nature Conservation legislation in Romania” developed in the framework of the PSO Pre-Accession programme (PPA) and financial supported by the Netherlands.

### **Methodology**

The present overview used as working background international and national relevant documents and scientific reference publications, as:

- Habitat Directive 92/43/EEC
- The list of the plant taxa from Habitat Directive (Annex IIb) presents in Romania and nominated in the Accession agreement of Romania to the European Union
- Council Directive 92/43/EEC of 21<sup>st</sup> of May 1992 on the conservation of natural habitats and of wild fauna and flora
- The Romanian law no. 422/2001 (with all the modification and up-dating)
- The Romanian Flora (vol. 1-13) (1952-1976) [7]
- The flora of Romanian Pteridophyta and Spermatophyta [2]
- The Romanian Red List of vascular plants [3]
- The Critical list of vascular plants from Romania [4]
- Important Plant Areas in central and eastern Europe [1]
- Important areas for plants in Romania [5]

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- Special areas for plant conservation in Romania [Sârbu et al., 2007]

The existing information about those 50 plant taxa included in the Accession Agreement of Romania to the European Union was evaluated from the following point of views: distribution on the Romanian territory (location from the literature and location confirmed in the last 5 years), information about the populations state (unknown, poor, medium, good), conservation state (globally threatened, european threatened, national conservation value), distribution maps, photos with plants and their habitats and existing gaps in knowledges.

### Results and discussions

From the whole amount of plants listed in Annex IIb of the Habitat Directive 92/43/EEC, are still present in Romania 50 species and subspecies (47 vascular plants and 3 briophytes): 8 taxa are globally threatened and 40 taxa are European threatened (**Table 1**).

**Tab. 1.** Plant for the Habitat Directive – on overview on the existing information in Romania

| Taxa<br>(Annex IIb)   | Number of locations from the literature | Number of locations confirmed in the last 5 years | Information about the population state |      |        |      | Conservation state  |                     |                  |
|---|---|---|--|------|--------|------|---------------------|---------------------|------------------|
|   |   |   | un-known                               | poor | medium | good | Globally threatened | European threatened | National statute |
| 1. <i>Adenophora lilifolia</i> (L.) Ledeb. ex A.DC.             | 22                                      | 6   | •                                      |      |        |      | •                   | -                   |                  |
| 2. <i>Agrimonia pilosa</i> Ledeb.                               | 18                                      | 6   | •                                      |      |        |      | •                   | R                   |                  |
| 3. <i>Aldrovanda vesiculosa</i> L.                              | 44                                      | 5   |  | •    |        |      | •                   | EN                  |                  |
| 4. <i>Angelica palustris</i> (Besser) Hoffm.                    | 18                                      | 5   | •                                      |      |        |      | •                   | VU/R                |                  |
| 5. <i>Apium repens</i> (Jacq.) Lag. – <b>uncertain presence</b> | 3                                       | -   |  |      |        |      | •                   | EX                  |                  |
| 6. <i>Asplenium aduterinum</i> Milde                            | 8                                       | 4   | •                                      |      |        |      | •                   | B, R                |                  |
| 7. <i>Astragalus peterfii</i> Jáv.                              | 3                                       | 1   |  |      |        | •    |                     | A, EN/R             |                  |
| 8. <i>Caldesia parnassifolia</i> (L.) Parl.                     | 13                                      | 1   | •                                      |      |        |      | •                   | VU/R                |                  |
| 9. <i>Campanula romanica</i> Săvul.                             | 29                                      | 9   |  |      |        | •    |                     | A, VU/R             |                  |
| 10. <i>Campanula serrata</i> (Kit.) Hendrych                    | 44                                      | 49  |  |      | •      |      | •                   | -                   |                  |
| 11. <i>Centaurea jankae</i> D.Brândză                           | 6                                       | 3   |  |      |        | •    |                     | A, EN               |                  |
| 12. <i>Centaurea pontica</i> Prodan & Nyár.                     | 2                                       | 3   |  |      |        | •    |                     | A, EN               |                  |
| 13. <i>Cirsium brachycephalum</i> Juratzka                      | 15                                      | -   | •                                      |      |        |      | •                   | B, VU/R             |                  |
| 14. <i>Colchicum arenarium</i> Waldst. & Kit                    | 3                                       | 2   |  |      |        | •    | •                   | B, EN/R             |                  |
| 15. <i>Crambe tataria</i> Sebeók                                | 29                                      | 12  | •                                      |      |        |      | •                   | VU/R                |                  |
| 16. <i>Cypripedium calceolus</i> L.                             | 41                                      | 19  | •                                      |      |        |      | •                   | V/R                 |                  |
| 17. <i>Dianthus diutinus</i> Kit. – <b>uncertain presence</b>   | 1                                       | -   |  |      |        |      | •                   | B, EX               |                  |
| 18. <i>Draba dorneri</i> Heuff.                                 | 6                                       | 3   | •                                      |      |        |      | •                   | A, VU/R             |                  |
| 19. <i>Dracocephalum austriacum</i> L.                          | 4                                       | 2   | •                                      |      |        |      | •                   | R                   |                  |
| 20. <i>Echium russicum</i> J.F.Gmel.                            | 22                                      | 27  |  | •    |        |      | •                   | -                   |                  |
| 21. <i>Eleocharis carniolica</i> Koch                           | 39                                      | 6   |  |      | •      |      | •                   | -                   |                  |
| 22. <i>Ferula sadleriana</i> Ledeb.                             | 2                                       | 1   | •                                      |      |        |      | •                   | VU/R                |                  |

|     |   |    |    |   |   |   |   |   |   |         |
|-----|---|----|----|---|---|---|---|---|---|---------|
| 23. | <i>Galium moldavicum</i> (Dobrescu) Franco  | 3  | 2  | • |   |   |   |   | • | b, VU/R |
| 24. | <i>Gladiolus palustris</i> Gaud.  | 4  | 1  | • |   |   |   |   | • | ?       |
| 25. | <b><i>Himantoglossum hircinum</i></b> ssp. <i>caprinum</i> (Bieb.) V. Koch                    | 38 | 7  | • |   |   |   |   | • | R       |
| 26. | <i>Iris aphylla</i> L. ssp. <i>hungarica</i> Hegi   | 49 | 5  | • |   |   |   |   | • | -       |
| 27. | <i>Iris humilis</i> Georgi ssp. <i>arenaria</i> (Waldst. & Kit.) A. & D. Love                 | 9  | 3  | • |   |   |   |   | • | VU/R    |
| 28. | <i>Ligularia sibirica</i> (L.) Cass.  | 57 | 19 |   | • |   |   |   | • | R       |
| 29. | <i>Liparis loeselii</i> (L.) Rich.  | 20 | 9  | • |   |   |   |   | • | R       |
| 30. | <i>Luronium natans</i> (L.) Raf. – <b>uncertain presence</b>                                  | 2  | -  |   |   |   |   |   | • | EX      |
| 31. | <i>Marsilea quadrifolia</i> L.  | 42 | 7  |   | • |   |   |   | • | VU      |
| 32. | <i>Moehringia jankae</i> Griseb. ex Janka   | 8  | 4  |   |   | • |   |   | • | b, R    |
| 33. | <i>Paeonia officinalis</i> L. ssp. <i>banatica</i> (Rochel) Soó                               | 5  | 1  | • |   |   |   |   | • | b, R    |
| 34. | <b><i>Poa granitica</i></b> Braun-Blanq. ssp. <i>disparilis</i> (Nyár.) Nyár.                 | 25 | 4  | • |   |   |   |   | • | A, R    |
| 35. | <i>Potentilla emilii-popii</i> Nyár.  | 9  | 8  |   |   | • |   |   | • | b, VU/R |
| 36. | <i>Pulsatilla patens</i> (L.) Mill.   | 21 | 3  | • |   |   |   |   | • | R       |
| 37. | <i>Pulsatilla pratensis</i> (L.) Mill. ssp. <i>hungarica</i> Soó                              | 15 | 1  | • |   |   |   | • |   | -       |
| 38. | <i>Pulsatilla vulgaris</i> ssp. <i>grandis</i> Wenderoth                                      | 35 | 7  | • |   |   |   |   | • | R       |
| 39. | <i>Salicornia veneta</i> Pignatti & Lausi   | 7  | 1  | • |   |   |   | • |   | R       |
| 40. | <i>Saxifraga hirculus</i> L.  | 5  | 1  |   |   | • |   |   | • | VU/R    |
| 41. | <i>Serratula lycopifolia</i> (Vill.) A.Kern.  | 17 | 3  | • |   |   |   |   | • | VU/R    |
| 42. | <i>Stipa danubialis</i> Dihoru & Roman  | 4  | 1  |   |   | • | • |   |   | A, R    |
| 43. | <i>Syringa josikaea</i> Jacq.f.   | 14 | 2  |   |   | • |   |   | • | b, VU/R |
| 44. | <i>Thesium ebracteatum</i> Hayne – <b>uncertain presence</b>                                  | 3  | -  |   |   |   |   |   | • | EX      |
| 45. | <b><i>Thlaspi jankae</i></b> A.Kern.  | 5  | 3  | • |   |   |   |   | • | b, R    |
| 46. | <i>Tozzia carpathica</i> Wol. ( <i>Tozzia alpina</i> L. ssp. <i>carpathica</i> (Wol.) Dostál) | 33 | 23 |   | • |   |   |   | • | R       |
| 47. | <i>Tulipa hungarica</i> Borbás  | 9  | 3  |   |   | • |   |   | • | R       |
| 48. | <i>Drepanocladus vernicosus</i> (Mitt.) Varnst.   | 6  | 6  | • |   |   |   |   | • | -       |
| 49. | <i>Meesia longiseta</i> Hedw.   | 4  | 5  | • |   |   |   |   | • | -       |
| 50. | <i>Sphagnum pylaisii</i> Brid.  | 1  | -  | • |   |   |   |   | • | -       |

*Globally threatened* (G) – (IUCN Red List + Habitat Directive – Annex IIb & IVb + Bern Convention – App I)  
*European threatened* (EN) - (Habitat Directive – Annex IIb & IVb + Bern Convention – App I)  
*National statute* (N) – according the “Romanian Red List”, 1994 (Oltean & colab.): EX – extinct, A – endemic, R – Rare, b – near endemic, VU – vulnerable, EN – threatened, B – European areal, ? – without information.  
 In aldine letter – the taxa included under the Habitat Directive 92/43/EEC, as a result of Romania and Bulgaria accession to the EU.

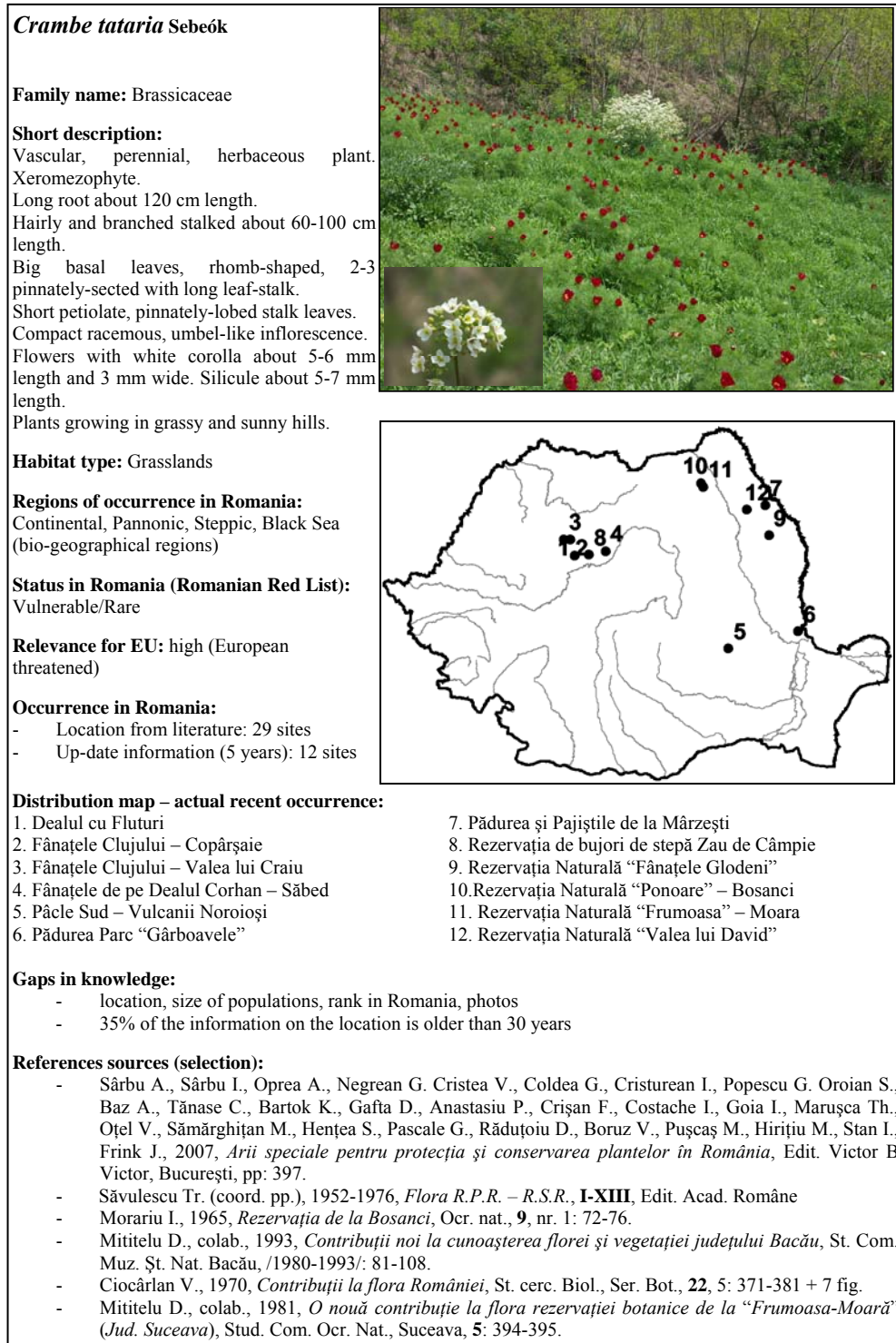


Fig. 1 *Crambe tataria* – Existing information and gaps in knowledges

The existing informations about these plants, nominated in the Accession Agreement of Romania to the European Union show many gaps in knowledge, especially with regard to their location, maps of distribution and populations state. For those 50 nominated taxa, 876 locations were identified from the botanic literature. Some of them have very large areas as Carpathian mountains or all the Romanian regions (Maramureş, Transilvania, Crişana, Banat, Oltenia, Muntenia, Moldova, Bucovina & Dobrogea). Unfortunately, we have up-date information for only about 220 populations, belonging to 38 taxa. For the other populations only the information from literature was available and this information is, in different proportions, older than 30 years. Four taxa nominated in the literature as present in Romania (e.g. *Apium repens*, *Dianthus diutinus*, *Luronium natans* and *Thesium ebracteatum*) have an uncertain presence in Romania.

In order to better underline the existing lack on information an example (*Crambe tararia*) has been presented in **Fig. 1**.

### Conclusions

- The existing information about the 50 plants taxa from the Habitat Directive 92/43/EEC – Annex IIb is incomplete, not full up-date and broken-up. Consequently it's not in accordance with the European requirements.
- A special programme needs to be developed in order to establish an up-date database on the Romanian plant taxa, nominated in the Habitat Directive – Annex IIb. The field activity made by botanists and phytocoenologists is required as a basic source of information. Without this type of activity the information will be not up-date, and the existing old, incomplete and an very general information will be continuous used.

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